

Discrete Mathematics
Volume 285, Numbers 1–3, 6 August 2004

Contents

Contributions

- V.E. Alekseev, D.V. Korobitsyn and V.V. Lozin*
Boundary classes of graphs for the dominating set problem 1
- T. Biedl, E.D. Demaine, C.A. Duncan, R. Fleischer and S.G. Kobourov*
Tight bounds on maximal and maximum matchings 7
- B. Bollobás and V. Nikiforov*
Hermitian matrices and graphs: singular values and discrepancy 17
- J.I. Brown, C.A. Hickman and R.J. Nowakowski*
The k -fractal of a simplicial complex 33
- X.E. Chen*
On the largest eigenvalues of trees 47
- K.Ch. Das*
Maximizing the sum of the squares of the degrees of a graph 57
- T. Došlić, D. Svrtan and D. Veljan*
Enumerative aspects of secondary structures 67
- L. Gargano, M. Hammar, P. Hell, L. Stacho and U. Vaccaro*
Spanning spiders and light-splitting switches 83
- G. Ge and A.C.H. Ling*
Group divisible designs with block size four and group type $g^u m^1$ for small g 97
- M.J. Grannell and V.P. Korzhik*
Nonorientable biembeddings of Steiner triple systems 121
- T. Hasunuma, Y. Kikuchi, T. Mori and Y. Shibata*
On the number of cycles in generalized Kautz digraphs 127
- F.B. Holt*
Blending simple polytopes at faces 141
- M. Kanovich*
Finding direct partition bijections by two-directional rewriting techniques 151
- M. Lemos*
Elements belonging to triads in 3-connected matroids 167

<i>M. Lepović</i> On integral graphs which belong to the class $\overline{\alpha K_a \cup \beta K_{b,b}}$	183
<i>D. Levy</i> Injectivity and surjectivity of Collatz functions	191
<i>E.G. Mphako</i> H -lifts of tangential k -blocks	201
<i>A. Nakamoto, S. Negami and K. Ota</i> Chromatic numbers and cycle parities of quadrangulations on nonorientable closed surfaces	211
<i>M.I. Ostrovskii</i> Minimal congestion trees	219
<i>C. Peters and L. Volkmann</i> Vertex 6-pancyclic in-tournaments	227
<i>N. Polat</i> Fixed finite subgraph theorems in infinite weakly modular graphs	239
<i>M. Stehlík</i> A generalisation of matching and colouring	257
<i>L. Volkmann and S. Winzen</i> Almost regular multipartite tournaments containing a Hamiltonian path through a given arc	267
<i>L. Xiong, H.J. Broersma, X. Li and M. Li</i> The hamiltonian index of a graph and its branch-bonds	279
<i>P.T. Young</i> Degenerate and n -adic versions of Kummer's congruences for values of Bernoulli polynomials	289
Notes	
<i>R.E.L. Aldred and C. Thomassen</i> Graphs with not all possible path-kernels	297
<i>A.D. Flaxman</i> A sharp threshold for a random constraint satisfaction problem	301
<i>T. Fujisaki</i> A construction of amorphous association scheme from a pseudo-cyclic association scheme	307
<i>H. Galeana-Sánchez and R. Rojas-Monroy</i> On monochromatic paths and monochromatic 4-cycles in edge coloured bipartite tournaments	313
<i>P. Hell and J.J. Montellano-Ballesteros</i> Polychromatic cliques	319

<i>M. Herzog, G. Kaplan and A. Lev</i> Representation of permutations as products of two cycles	323
<i>J. Honkala and M. Rigo</i> Decidability questions related to abstract numeration systems	329
<i>D.D.-F. Liu</i> Circular chromatic number for iterated Mycielski graphs	335
<i>H. Ma and H. Ren</i> σ -polynomials	341
<i>N. Sendrier</i> Linear codes with complementary duals meet the Gilbert–Varshamov bound	345
<i>J. Talbot</i> A new Bollobás-type inequality and applications to t -intersecting families of sets	349
<i>I. Tomescu</i> Sunflower hypergraphs are chromatically unique	355
<i>L. Volkmann</i> Hamiltonian paths containing a given arc, in almost regular bipartite tournaments	359
Author index to volume 285	365
Guide for authors	367